

We claim:

1 1. A method of producing metal tubing in a planetary
2 skew rolling mill which comprises the steps of:

3 (a) advancing a tubular metal bloom between a plurality
4 of rolls of a planetary skew rolling mill, positioning a mandrel-
5 shaped internal tool within said bloom and rolling the bloom with
6 said rolls against said mandrel-shaped internal tool to a reduced
7 wall thickness of a rolled tubing in a working position of said
8 internal tool;

9 (b) upon approach of an end of said bloom to a region
10 of said rolls, withdrawing said mandrel-shaped internal tool from
11 said working position linearly by a predetermined distance in a
12 direction opposite a direction of advance of the bloom; and

13 (c) upon said end passing said region of said rolls,
14 displacing said mandrel-shaped internal tool linearly back into
15 said position.

1 2. The method defined in claim 1, further comprising
2 the step of sealing said end liquid tight by compressing said end
3 with said rolls upon withdrawal of said mandrel-shaped internal
4 tool from said position.

1 3. The method defined in claim 2 wherein said end is a
2 leading end of the bloom.

1 4. The method defined in claim 2 wherein said end is a
2 trailing end of the bloom.

1 5. The method defined in claim 2 wherein both a
2 leading end and a trailing end of the bloom are sealed.

1 6. The method defined in claim 2 wherein at least two
2 of said blooms are fed one after another through said region and a
3 leading end of a subsequent bloom abuts a trailing end of a
4 preceding bloom.

1 7. The method defined in claim 6 wherein a succession
2 of said blooms are fed continuously through the planetary skew
3 rolling mill.

1 8. The method defined in claim 2, further comprising
2 the steps of measuring rotation of said tubing during rolling

3 thereof, and controlling at least one drive of the planetary skew
4 rolling mill to compensate for rotation of the tubing about a
5 longitudinal axis thereof.

1 9. The method defined in claim 8 wherein the
2 controlled drive is a main drive of said rolling mill.

1 10. The method defined in claim 8 wherein the
2 controlled drive is a superimposed drive of said rolling mill.

1 11. The method defined in claim 2, further comprising
2 the step of cooling at least one of said bloom and said tubing
3 with a liquid cooling medium.

1 12. A planetary skew rolling mill for producing metal
2 tubing,
3 comprising:

4 a plurality of rolls in a planetary skew rolling mill
5 configuration and a mandrel-shaped internal tool within a tubular
6 metal bloom for rolling the bloom with said rolls against said
7 mandrel-shaped internal tool to a reduced wall thickness of a
8 rolled tubing in a working position of said internal tool; and

9 a device connected to said internal tool and effective
10 upon approach of an end of said bloom to a region of said rolls
11 for withdrawing said mandrel-shaped internal tool from said
12 working position linearly by a predetermined distance in a
13 direction opposite to a direction of advance of the bloom, and
14 effective upon said end passing said region of said rolls for
15 displacing said mandrel-shaped internal tool linearly back into
16 said position.

1 13. The planetary skew rolling mill defined in claim
2 12 wherein said device is a linear actuator.

1 14. The planetary skew rolling mill defined in claim
2 12 wherein said linear actuator is a hydraulic actuator.

1 15. The planetary skew rolling mill defined in claim
2 12 wherein said linear actuator is an electrical actuator.